

CHARTER FOR THE NAS Information Architecture Committee (NIAC)

December 19, 2000

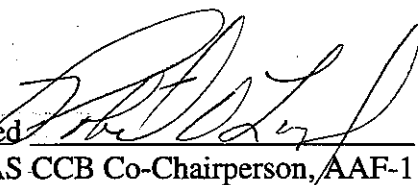
Submitted by:

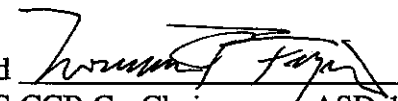

NIAC Co-Chairperson, ATS


NIAC Co-Chairperson, ARA

 12/21/00
NIAC Co-Chairperson, AIO

 12/26/00
NIAC Executive Secretary, ASD


Approved
NAS CCB Co-Chairperson, AAF-1


Approved
NAS CCB Co-Chairperson, ASD-1

NAS Information Architecture Committee

1.0 Introduction

1.1 Purpose

This charter establishes the National Airspace System (NAS) Information Architecture Committee (NIAC) as a standing committee of the NAS Configuration Control Board (NAS CCB). It assigns the NIAC primary responsibility for the development of NAS data standards that will be used to define all data interfaces that are controlled by the NAS CCB, e.g., interfaces specified in an Interface Requirements Document that becomes a NAS Configuration Item (CI). These data standards address operational information components (e.g., data elements and objects, data models, and data standards registries) for the Federal Aviation Administration's NAS Information Architecture. The final approval action of the NIAC recommendations in this area will be by the NAS CCB. The NIAC will also operate as a forum for addressing NAS-wide issues relating to data standards and information engineering.

1.2 Authority

1.2.1 The NIAC is authorized by the NAS CCB in accordance with *FAA Order 1800.66, NAS Configuration Management*¹, as a pre-screening organization for data standards and other items relating to the definition of the NAS Information Architecture that come before the NAS CCB. The charter shall be changed only with the approval of the NAS CCB, upon recommendation of the NIAC. The composition and operation of the NIAC is consistent with the *FAA Information Technology Strategy, Version 1.0* dated September 22, 1999 and the *FAA Data Management Strategy, Version 1.0* dated September 22, 1999.

1.2.2 Three years after approval of this charter, the NIAC activity shall be reviewed and the charter reissued or the NIAC shall be dissolved.

1.3 Information Architecture Defined

Information Architecture depicts the distribution and access mechanisms associated with data for one or more applications. It defines the standards and procedures needed to create consistent, accurate, complete and timely data. It defines a process for rationalizing data needs across applications and determining its appropriate distribution and placement. It defines the methods for the allocation and distribution of all computerized information.

2.0 NIAC Responsibilities

The NIAC will have the following responsibilities:

- 2.1. Perform functions as established in this charter.

¹ FAA Order 1800.66 CHG 1: Part Two, CM Handbook, Sections I (NAS CCB Charter) and III (National CM Procedures) pending FAA Administrator approval.

- 2.2. Approve and implement committee operating procedures and any changes to the procedures.
- 2.3. Review and analyze all NAS Change Proposals (NCPs) relating to NAS data standards, and provide the NAS CCB with technical analysis and pre-screening reviews as required to enable the NAS CCB to make a technically/programmatically sound decision on the NCP.
- 2.4. Guide and coordinate the inter- and intra-agency activities for implementing NAS-wide data standards. The NIAC will act as an information-engineering advisor regarding the applications of NAS data standards and standard models of NAS information components.
- 2.5. Develop processes for collaboratively defining and validating common NAS data specifications and for registration and management of these specifications. Specifically, address the organization, collection, quality assessment, standards, sponsorship or ownership, and disposition of NAS metadata, where metadata is defined as the descriptive information contained in an individual data standard, namely the data's definition, structure, content, unit of measure, format, etc. (Note: Metadata is data about data.) Recommend government, commercial and international data standards for use in the NAS Information Architecture.
- 2.6. Promote the integration of Acquisition Management System (AMS) processes into the NAS Information Architecture by developing standards and fostering an Information Architecture engineering process that will be used throughout the NAS. Specifically address and develop life cycle information-engineering enhancements to the AMS and FAA Acquisition System Toolset (FAST).
- 2.7. Advise on the design of a topology and timeline for deploying common NAS-wide information services consistent with the phases for developing other projects and segments of the NAS Architecture.
- 2.8. Recommend Information Architecture policies and process improvements pertaining to NAS products and services to the Office of Information Services and Chief Information Officer (AIO).
- 2.9. Establish, as needed, Working Groups to address specific information engineering issues and develop NAS Change Proposal (NCP) Case Files to support the creation or modification of NAS data standards, for pre-screen review by the NIAC. Working Groups will be individually chartered through a "Terms of Reference (ToR)" process in which a draft ToR will be created and submitted to the NIAC for approval by the NIAC Co-Chairpersons. An outline of the ToR is attached at Annex A.
- 2.10. Facilitate the exchange of information engineering theory and practice through NIAC forums that bring together information engineering practitioners and others to share their technical expertise and experience.

- 2.11. Promote appropriate Information Architecture awareness through activities such as conferences and workshops to establish and preserve an appropriate national and global air space Information Architecture culture.
- 2.12. Communicate the activities, standards, and status of the FAA's Information Architecture to appropriate international aviation bodies, including foreign national Civil Aviation Agencies (CAAs), ICAO, EUROCONTROL, and the RTCA.
- 2.13. Establish methods in all its activities, where applicable, that conform to practices identified by the FAA's integrated Capability Maturity Model (iCMM).

3.0 NIAC Participants

The participants of the NIAC will be the following persons:

3.1 Officers

3.1.1 Co-Chairpersons. Three senior-level Co-Chairpersons representing ATS, ARA, and AIO will be appointed by the heads of these organizations and share equal responsibility for managing the NIAC.

3.1.2 Executive Secretary. The ASD organization will provide the Executive Secretary and oversee the coordination of NIAC activities.

3.2 Core Committee. Core Committee members will initially include the following:

- 3.2.1 Representative, AND Office of Communication, Navigation, and Surveillance Systems
- 3.2.2 Representative, AUA Office of Air Traffic Systems Development
- 3.2.3 Representative, AAT Air Traffic Service
- 3.2.4 Representative, AAF Airway Facilities Service
- 3.2.5 Representative, ASY Office of System Safety
- 3.2.6 Representative, AFS Flight Standards Service
- 3.2.7 Representative, AIR Aircraft Certification Service
- 3.2.8 Representative, ASD System Architecture and Investment Analysis

3.3 Ad Hoc Members: Ad Hoc membership in the NIAC is open to all interested persons from the FAA, from the NAS user community, and from the various private organizations supporting the FAA. FAA support contractors are included based on the recommendation of an appropriate FAA manager. Membership is not a requirement for attendance at NIAC forums, nor is attendance required for membership; however, members are expected to participate actively in NIAC Working Groups or in collaborative discussions via NIAC's electronic collaboration system, CDIMS². Inactive members may be asked to renew their membership.

² The Collaborative Data Integration Management System, or CDIMS, is a secure Lotus Notes/Domino web-based groupware tool maintained for NIAC at the William J. Hughes Technical Center. CDIMS users can post data standards proposals, review them collaboratively, and promote them through approval levels.

4.0 NIAC Administration

The NIAC Executive Secretary will be responsible for scheduling and conducting NIAC meetings and forums as approved by the NIAC Co-Chairpersons, and for coordinating the administrative tasks of the NIAC in accordance with the operating procedures. The Secretary will maintain an address database of Ad Hoc as well as Core Committee members and keep attendance records for the appropriate distribution of announcements and materials.

5.0 NIAC Recommendations and Decisions

The NIAC Co-Chairpersons will make the final decision on the NIAC pre-screen review of each Case File written to establish or modify NAS data standards, to be submitted to the NAS CCB for consideration as a NAS Change Proposal (NCP) in accordance with the operating procedures. The pre-screen review decision may be preceded by a period of collaborative discussion during which the Co-Chairpersons will poll the NIAC Core Committee members for their opinions on the disposition of a Case File as may be appropriate. Ad Hoc members are encouraged to express their opinions through Core Committee representatives. Electronic tracking of the Core Committee consensus will be provided for each review. The Co-Chairpersons may render a decision on a developed Case File in one of the following ways:

5.1 Approve the pre-screen review as written and forward the developed Case File to the NAS CCB control desk for approval, recommending a favorable Configuration Control Decision (CCD) which establishes a new baseline or standard for accomplishing the configuration changes to the existing baseline.

5.2 Recommend disapproval of the Case File with reasons clearly stated in the Case File form.

5.3 Approve the Case File with specific changes to the developed Case File and forward the package to the NAS CCB control desk clearly stating the changes.

5.4 Defer action on the pre-screen review pending the availability of additional information, returning the Case File package to the responsible Working Group and describing the need for further information to complete the action by a specific due date.

ANNEX A: Outline for Working Group Terms of Reference (ToR)

Name of Working Group

Proposed Terms of Reference

(Once approved by the NIAC, "Proposed" will be removed.)

Background

Provide a 1-paragraph summary of the relevant issue(s) that are the basis for specifying a Working Group.

Scope

Provide a concise statement of the problem and work that will be pursued by the Group with appropriate boundaries to the problem. Include approximate time frame for the work of the Group.

Working Group Action Plan

Provide, in summary form, the task elements that will be the basis for the Group's activities over the term of the Group's charter.

Product Schedule

State the intended products, such as Case File package, briefings, reports, etc. that will be produced and delivered by the Group. Specify the approximate date of delivery for each item.

Working Group Membership

Identify the Organizations that will provide members, and the names of those individuals. Identify the Chairperson(s) for the Group.

Note: Terms of Reference will be a NIAC agenda item and the minutes of the NIAC forum/meeting addressing the creation of a Working Group will explicitly record the conclusions. The approval of the ToR will be considered a formal recommendation of the NIAC, thereby requiring the signatures of the NIAC Co-Chairpersons.